

SUGAR ACRES ADDITION

Bloomington - Ellettsville Road

Curve #1 = ANGLE = $\frac{14-20}{2} = 7-10$

TANG. = 80 FT. = (COT. OF 7-10 X TANG) = RADIUS = 63.62'

RADIUS = 636.24 FT.

(7-10 = 6-70)

DEF. 1-47-30

3-35-00

5-22-30

7-10

CURVE LENGTH = 159.90

$\frac{1}{2}$ CHORD LENGTH = SIN OF 1-47-30 X RADIUS = 19.80 X 2 = 39.60 FT.

CURVE #2 - ANGLE = $\frac{14-20}{2} = 7-10$

RADIUS = 576.24 FT.

12

TANG = R X TAN $\frac{1}{2}$ I = .1257 X 576.24 = 72.43'

DEF. = 1-47-30

3-35-00

5-22-30

7-10

$\frac{1}{2}$ CHORD LENGTH = 18.00 FT. X 2 = 36.00'

CURVE LENGTH = 144.82

Circum of Curve = DIA. X (PI) 3.1416 =

$\frac{3162.78}{2} = 1581.39$

360 $\overline{)14.33}$

33%
60 $\overline{)200}$
180
200

360 $\overline{)14.33}$
108
12.33
1080



208.

SUGAR ACRES - CURVE DATA

CURVE #3

$$\text{ANGLE} = \frac{14-32}{2} = 7-16$$

$$\text{TANG.} = 75 \text{ FT.}$$

$$\text{DEF.} = 1-49$$

$$3-38$$

$$5-27$$

$$7-16$$

$$\text{CHORD LENGTH} = 37.28$$

$$\text{RAD} = 588.15$$

$$\text{CURVE LENGTH} = 147.71$$

$$6-60$$

$$3-30$$

$$8$$

$$1-49$$

$$1-49$$

$$2 \overline{) 3-38} - 2$$

$$2 \overline{) 2.98}$$

$$2-60$$

$$1-30$$

$$1-49$$

$$1-49$$

$$3-38$$

$$5-27$$

$$7-16$$

$$1-49$$

$$1-49$$

$$3-38$$

$$1-49$$

$$4-87$$

$$5-27$$

$$1-49$$

$$6-76$$

$$7-16$$

CURVE #4

$$\text{TAN} = 82.64 \text{ FT.}$$

$$\text{DEF} = 1-49$$

$$3-38$$

$$5-27$$

$$7-16$$

$$\text{CHORD LENGTH} = 41.08$$

$$\text{RAD} = 648.15$$

$$\text{CURVE LENGTH} = 162.89$$

588.15
648.15
628.15

$$7.842$$

$$75$$

$$39210$$

$$54894$$

$$\text{RAD} = 588.150$$

$$14-32 = .643$$

$$10317$$

$$4117050$$

$$588150$$

$$1764450$$

$$000000$$

$$18.6443550$$

$$2$$

$$37.28$$

$$4$$

$$149.12$$

$$648.15$$

$$648.15$$

$$1296.30 \times 3.1416 = \text{Circf.}$$

$$588.150$$

$$60$$

$$648.150$$

$$10317$$

$$4529050$$

$$648150$$

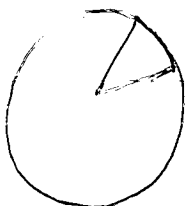
$$1944450$$

$$000000$$

$$20.5455550$$

$$2$$

$$41.08$$



$$153$$

$$60 \overline{) 320}$$

$$300$$

$$200$$

$$1043$$

$$360 \overline{) 14530}$$

$$14400$$

$$1300$$

FEB. 96

CURVE #5

(SUGAR ACRES CURVE DATA)

CURVE #5

$$\text{ANGLE} = \frac{32-12}{2} = 10-6$$

$$\text{TAN} = 100 \text{ FT.}$$

$$\text{DEF} = 4-1-30$$

$$8-3-0$$

$$12-4-30$$

$$16-6$$

$$\text{RADIUS} = 346.40 \text{ FT.}$$

$$\text{CHORD LENGTHS} = 48.48$$

$$\text{CURVE LENGTH} = 195.88$$

$$\begin{array}{r} 3.464 \\ 166 \\ \hline 20784 \\ 20784 \\ \hline 3464 \\ 575.024 \end{array}$$

CURVE #6

$$\text{DEF} = 41-30$$

$$8-3-0$$

$$12-4-30$$

$$16-6-0$$

$$\text{RADIUS} = 406.40$$

$$\text{CHORD LENGTHS} = 56.88$$

$$\text{TAN} = 117.28$$

$$\text{CURVE LENGTH} = 229.68$$

$$\begin{array}{r} 575.02 \\ 10700 \\ \hline 40251400 \\ 00000 \\ \hline 40251400 \\ 2 \\ \hline 8050 \\ 4 \\ \hline 32200 \end{array}$$

$$\begin{array}{r} 3.464 \\ 100 \\ \hline 346.400 \\ 42 \\ \hline 346.40 \\ 0700 \\ \hline 24248000 \\ 2 \\ \hline 48.48 \end{array}$$

$$\begin{array}{r} 406.40 \\ 12886 \\ \hline 1243840 \\ 325120 \\ \hline 325120 \\ 81280 \\ \hline 117287040 \end{array}$$

CURVE #7

$$A = \frac{30 - 44}{2} = 15 - 22$$

$$TAN = 140'$$

$$DEF = 3 - 50 - 30$$

$$7 - 41$$

$$11 - 31 - 30$$

$$15 - 22$$

$$RADIUS = 509.41$$

$$CHORD LENGTHS = 68.04'$$

$$CURVE LENGTH = 272.00 \text{ ft}$$

CURVE #8

$$ANG = \frac{30 - 44}{2} = 15 - 22$$

$$TAN = 123.49$$

$$RADIUS = 449.41'$$

$$DEF = 3 - 50 - 30$$

$$7 - 41$$

$$11 - 31 - 30$$

$$15 - 22$$

$$CHORD LENGTHS = 60.04'$$

$$CURVE LENGTH = 240.06 \text{ ft}$$

CURVE # 20 - opposite # 13

$$\text{ANGLE} = \frac{11-24}{2} = 542$$

$$\text{RADIUS} = 560.9 \text{ FT.}$$

$$\text{TAN.} = 56 \text{ FT.}$$

$$\text{DEF. } 1-25-30$$

$$2-51-00$$

$$4-16-30$$

$$5-42-00$$

1031°10

$$\text{CHORD LENGTHS} = 27.75 \text{ FT.}$$

$$\text{CURVE LENGTH} = 109.25 \text{ F}$$

CURVE # 18 - opposite # 14

$$\text{ANGLE} = \frac{17-44}{2} = 8-52$$

$$\text{RADIUS} = 701.02$$

$$\text{TAN.} = 109.35 \text{ FT.}$$

1049°10

$$\text{DEF.} = 2-13$$

$$4-26$$

$$6-39$$

$$8-52$$

$$\text{CURVE} = 215.86 \text{ FT.}$$

$$\text{CHORD LENGTHS} = 54.2 \text{ FT.}$$

CURVE # 17 - opposite # 15

$$\text{ANGLE} = \frac{22-48}{2} = 12-24$$

$$\text{RADIUS} = 555.94$$

$$\text{TAN.} = 122.30 \text{ FT.}$$

$$\text{DEF.} = 2-51$$

$$5-42$$

$$8-33$$

$$11-24$$

816°063

$$\text{CHORD LENGTH} = 53.30 \text{ FT.}$$

$$\text{CURVE LENGTH} = 218.18 \text{ FT.}$$

CURVE # 16 - opposite # 16

$$\text{ANGLE} = \frac{3-22}{2} = 1-41$$

$$\text{RADIUS} = 859.00$$

$$\text{TAN.} = 25.16 \text{ FT.}$$

$$\text{DEF.} = 0-25-15$$

$$0-50-30$$

$$1-15-45$$

$$1-41-00$$

$$\text{CHORD LENGTH} = 12.4 \text{ FT.}$$

1593.26
60
1255.26

8-60

4-30

15

CURVE #9 - $ANGLE = \frac{9-30}{2} = 4-45$

$TAN = 60$

$RADIUS = 722.04$

$DEF = 1-11-15$

$2-22-30$

$3-33-45$

$4-45$

$CHORD LENGTHS = 29.75$

$LENGTH OF CURVE = 118.20 FT.$

CURVE #10 $ANGLE = \frac{9-30}{2} = 4-45$

$TAN = 54.94$

$RADIUS = 662.04$

$DEF = 1-11-15$

$2-22-30$

$3-33-45$

$4-45$

$CHORD LENGTHS = 27.26$

$CURVE LENGTH = 108.16 FT.$

Scene Area

Curve 18

ANGLE $7-10 = 6-70 = 3-35$

TAN. 100 Ft.

RADIUS = 1596.86 Ft.

DEF. 0-53-45

1-47-30

2-41-15

3-35-00

0.8%

6' Rad @ Y of Road

CHORD LENGTHS = 50.14 Ft.
CURVE LENGTH = 199.94 Ft.



Curve 13

ANGLE $11-24 = 5-42$

TAN. = 50 Ft.

RADIUS = 500.0 Ft.

DEF = 1-25-30

2-51-00

4-16-30

5-42-00

0.31%

CHORD LENGTHS = 24.75 Ft.



Curve 13

ANGLE = 17-44 = 8-52

TAN. 100 Ft.

RADIUS = 641.02

DEF = 2-13

4-26

6-39

8-52

CURVE LENGTH = 199.52 Ft.

CHORD LENGTHS = 49.50 Ft.

P.C. 5.4' Sight F.B. Measurement

Curve #14

ANGLE = $\frac{22-48}{2} = 11-24$

TAN. = 100 FT

RADIUS = 935.94 FT

DEF. 2-57
5-42
8-33
11-24

1063%

CURVE LENGTH = 196.33

CHORD LENGTH = $\frac{50.60}{2} = 25.30$ FT

Curve #15

ANGLE = $\frac{3-22}{2} = 1-41$

TAN. = 47 FT

RADIUS = 1599.26

DEF. = 0-50-00
1-41-00
2-31-30
3-22-00

ERROR

CURVE LENGTH = 93.50

CHORD LENGTH = 24.67 FT

$\frac{133.6}{5.6} = 134.5$

Curve #20
opposite #12

ANGLE = $\frac{7-10}{2} = 3-35$

RADIUS = 1656.86

020/0

TAN. = $(R \tan \frac{1}{2} I) = 103.72$ FT

DEF. - 0-53-45
1-47-30
2-41-15
3-35-00

CHORD LENGTH = 51.10 FT

CURVE LENGTH = 207.94'

SUGAR ACRES - FINAL FOR PLAT

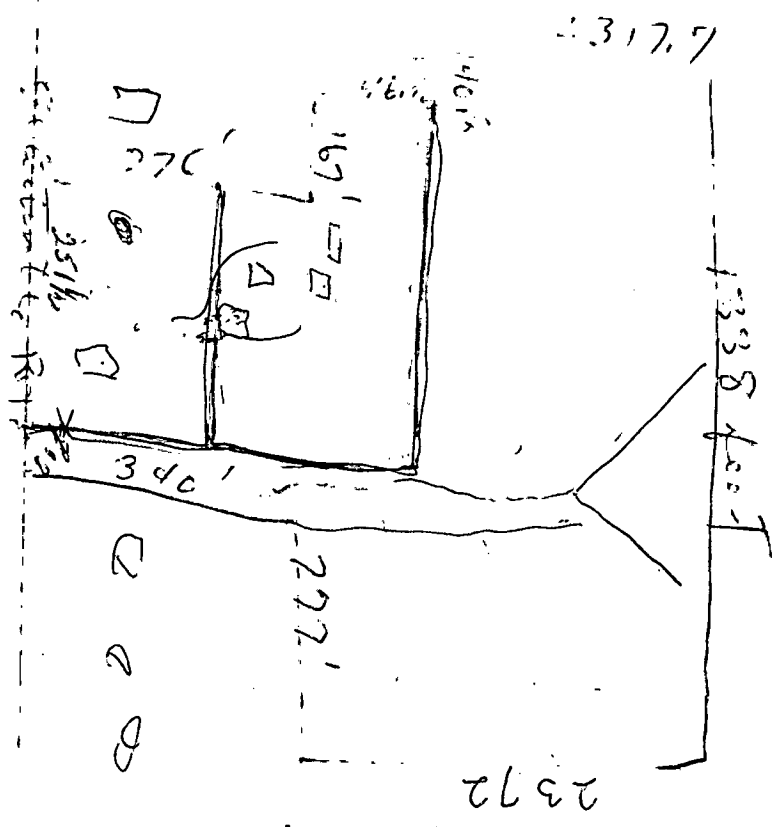
LINE	LENGTH	BEARING	LATITUDES (cos)		(sin) DEPARTURES	
			N	S	E	W
AB	(2040) 2037	SOUTH		2037		
BC	328.8	N 88-W	11.571			328.57
CD	346.2	S-1-45W		346.02		10.56
DE	446.4	N 88-23W	12.58			446.22
EF	301	SOUTH		301		
FG	60	WEST				60
GH	313.5	NORTH	313.5			
HI	499.10	N 88-15W	15.22			498.85
IJ	2346.5	NORTH	2346.5			
JA	1335.7	EAST			1335.7	
			2699.37	2699.24	1335.20	1334.20
				$\begin{array}{r} 29 \\ 24 \\ \hline 15 \end{array}$	$\begin{array}{r} 45 \\ 34 \\ \hline 11 \end{array}$	

2035
100
69.32

WM WINKLER

37RS Run DEEP

W
H H



13-RICHLAND TP

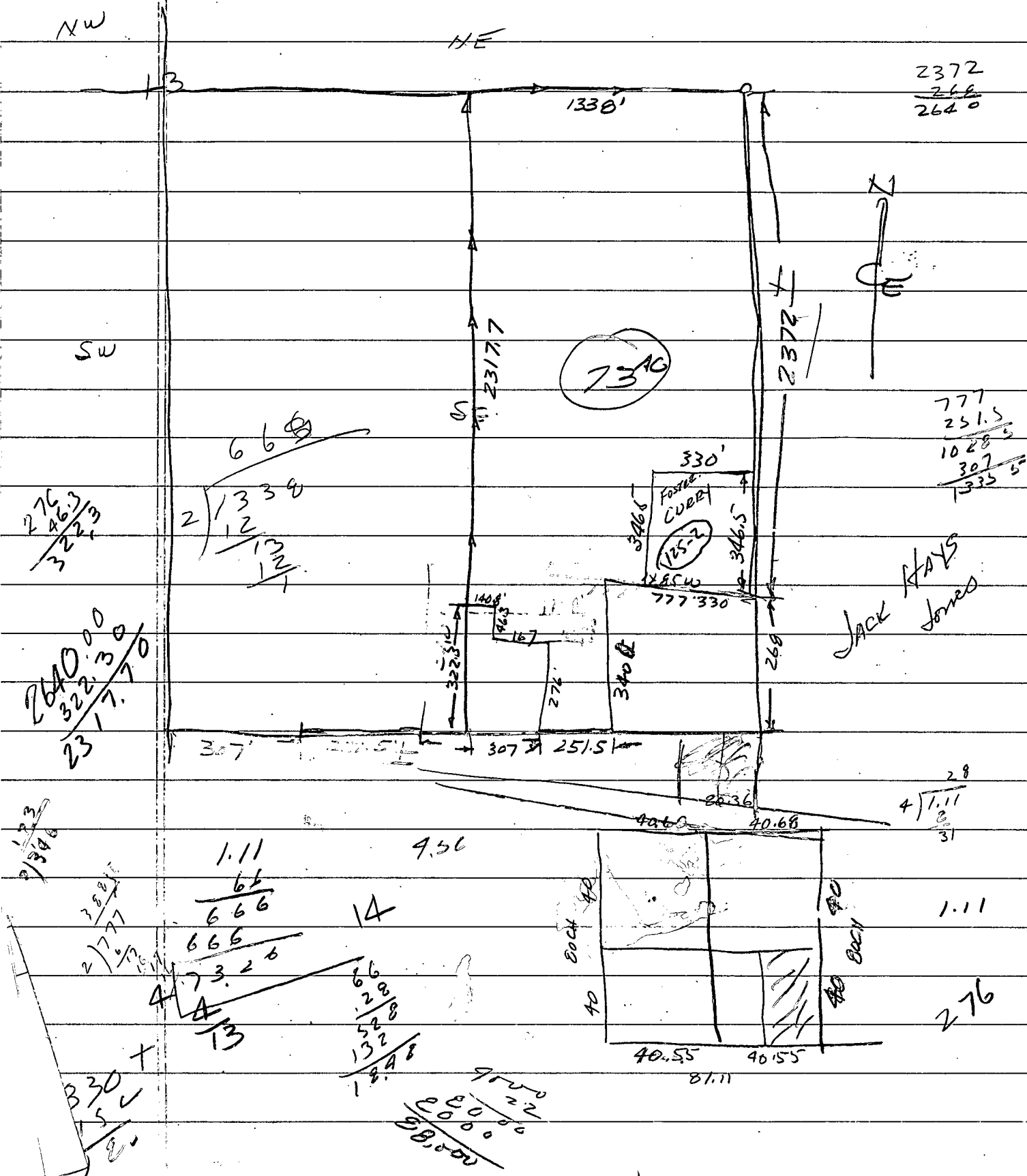
30

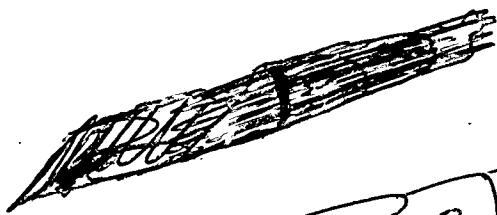
WMA WINKLET

117-378

A pt. $E\frac{1}{2}$ - $SE\frac{1}{4}$ - SEC. 13 - T9N; R2W

Req. @ NE Cor. of $E\frac{1}{2}$ of said $SE\frac{1}{4}$ - Smith
in east line $SE\frac{1}{4}$ for 2372





STAPLETON

~~64.20~~
64.20
25.20
89.20

DANIEL THOMAS

2346
1950
306

JP

2346
3010
336

100
100
100
100
100

100
100
100
100
100

150
130
120
150
100
250

100
100
100
100
100

2346
3010
306

48
99
150

999
50
991

5558.84

DELIVERED

to

4.50

1.25
4.50
6.250
500
5.6250

H

JAS. HOUSEL

1.25
- 6
7.30

6.25
100

500
16.86

SUGAR ACRES

LINE	LENGTH	BEARING	LATITUDES Cos.		DEPARTURES Sine	
			N	S	E	W
AB	329	NORTH	329			
BC	439.8	EAST Assumed			439.8	
CD	346.5	NORTH Assumed	346.5			
DE	328.8	EAST			328.8	
EF	2040	NORTH	2040			
FG	1345.7	WEST				1345.7
GH	2346.5	SOUTH		2346.5		
HI	140.8	EAST			140.8	
IJ	62.00	SOUTH		62.00		
JK	167.	EAST			167.00	
KL	274	SOUTH		274		
LA	EAST	251.5			251.5	
			2718.79	2682.73	1327.90	1345.70

PRELIMINARY

2718
2682
36

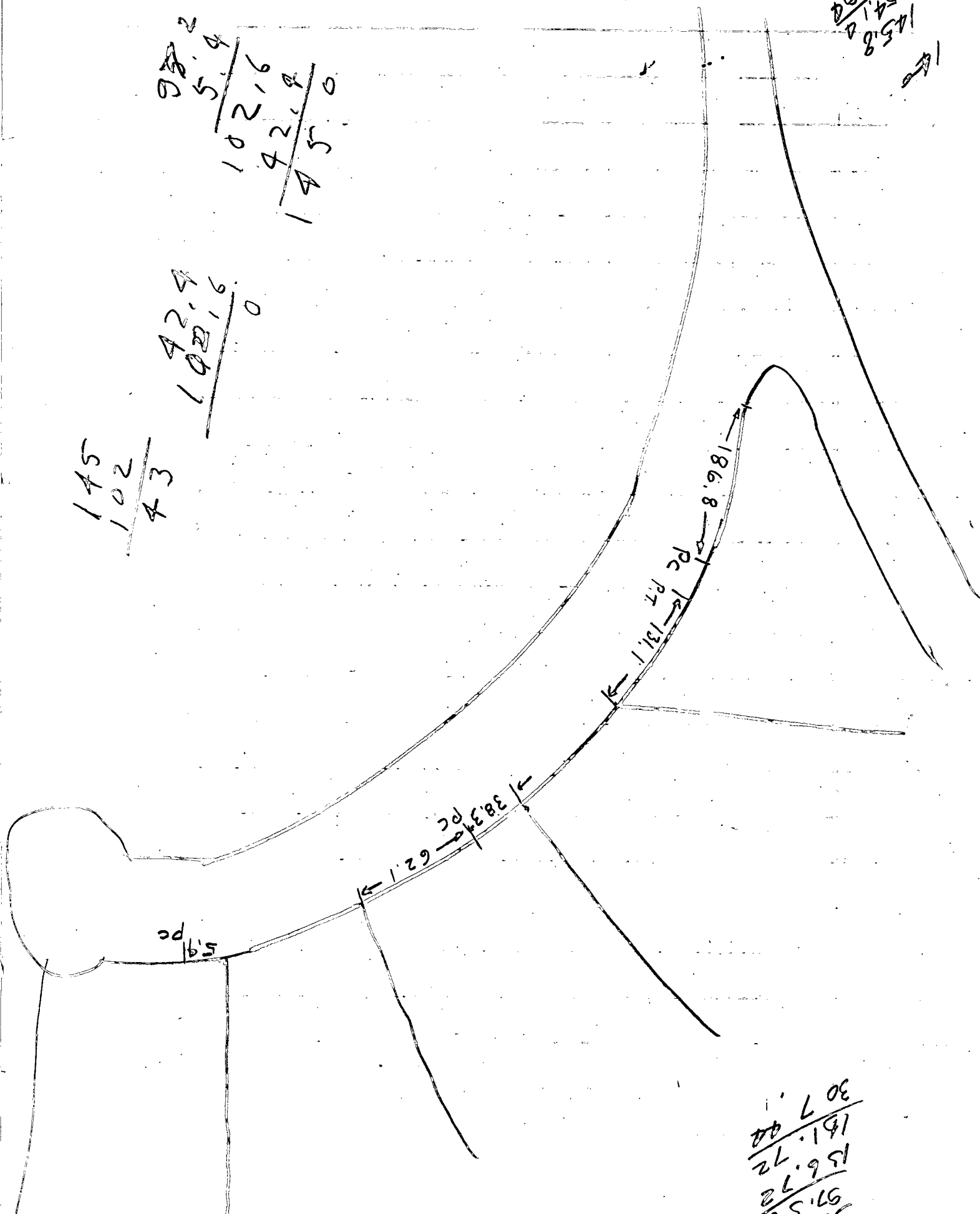
45
21
18

$$\begin{array}{r} 145 \\ 102 \\ \hline 43 \end{array}$$

$$\begin{array}{r} 42.4 \\ 142.6 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 98.2 \\ 5.4 \\ \hline 102.6 \\ 42.4 \\ \hline 145.0 \end{array}$$

$$\begin{array}{r} 145.8 \\ 54.14 \\ \hline 199.94 \end{array}$$

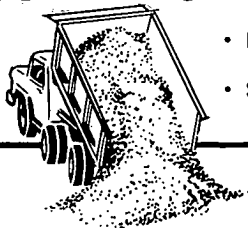
$$\begin{array}{r} 54.14 \\ 5 \\ \hline 59.14 \\ 51.58 \\ \hline 156.72 \\ 141.44 \\ \hline 307.28 \end{array}$$


$$\begin{array}{r}
 54.14 \\
 \underline{5.} \\
 59.14 \\
 97.58 \\
 \underline{156.72} \\
 151.72 \\
 \underline{308.44}
 \end{array}$$

$$\begin{array}{r}
 338.00 \\
 \underline{156.72} \\
 181.28
 \end{array}$$

$$\begin{array}{r}
 199.52 \\
 \underline{181.28} \\
 18.24
 \end{array}$$

BLOOMINGTON CRUSHED STONE CO. INC.



- BLOOMINGTON PLANT — PHONE ED 2-3318
- SPRINGVILLE PLANT — PHONE OWENSBURG 863-4201

$B \times \text{SEC } D = C$

$$\begin{array}{r}
 1,325,013 \\
 \quad \quad \quad 330 \\
 \hline
 397,503,98 \\
 357,503,5 \\
 \hline
 437,254,250
 \end{array}$$

$$\begin{array}{r}
 1,3250 \\
 \quad \quad 450 \\
 \hline
 662,500 \\
 53,000 \\
 \hline
 500
 \end{array}$$

GRADE A CRUSHED STONE - AGRICULTURAL LIMESTONE

$$\begin{array}{r} 5465 \\ 1960 \\ \hline 7425 \end{array}$$

$$\begin{array}{r} 102 \\ 101 \\ \hline 203 \end{array}$$

2346

$$\begin{array}{r} 7547 \\ 450 \\ \hline 377356 \\ 30168 \\ \hline 3396150 \end{array}$$

BLOOMINGTON CRUSHED STONE CO. INC.



- BLOOMINGTON PLANT — PHONE ED 2-3318
- SPRINGVILLE PLANT — PHONE OWENSBURG 863-4201

$$\begin{array}{r} 118.5 \\ 85.5 \\ \hline 204.0 \\ 27 \\ \hline 231 \end{array}$$

$$\begin{array}{r} 1348 \\ 129 \\ \hline 1326 \end{array}$$



$$\begin{array}{r} 1155 \\ 40 \\ \hline 1115 \end{array}$$

$$\begin{array}{r} 96 \\ 67 \\ \hline 163 \end{array}$$

$$\begin{array}{r} 1155 \\ 24.5 \\ \hline 1130.5 \end{array}$$

GRADE A CRUSHED STONE - AGRICULTURAL LIMESTONE

2346.50

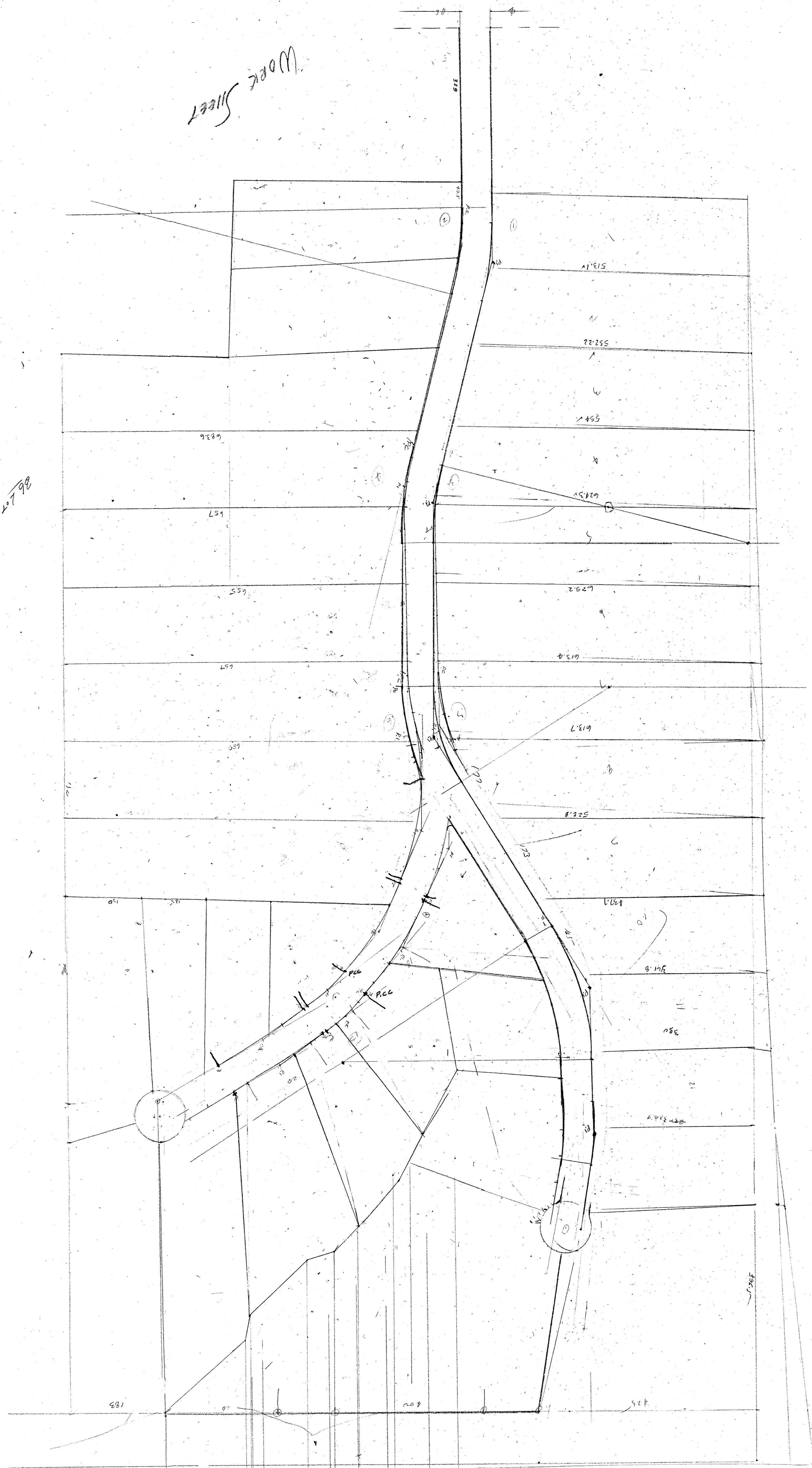
62.00

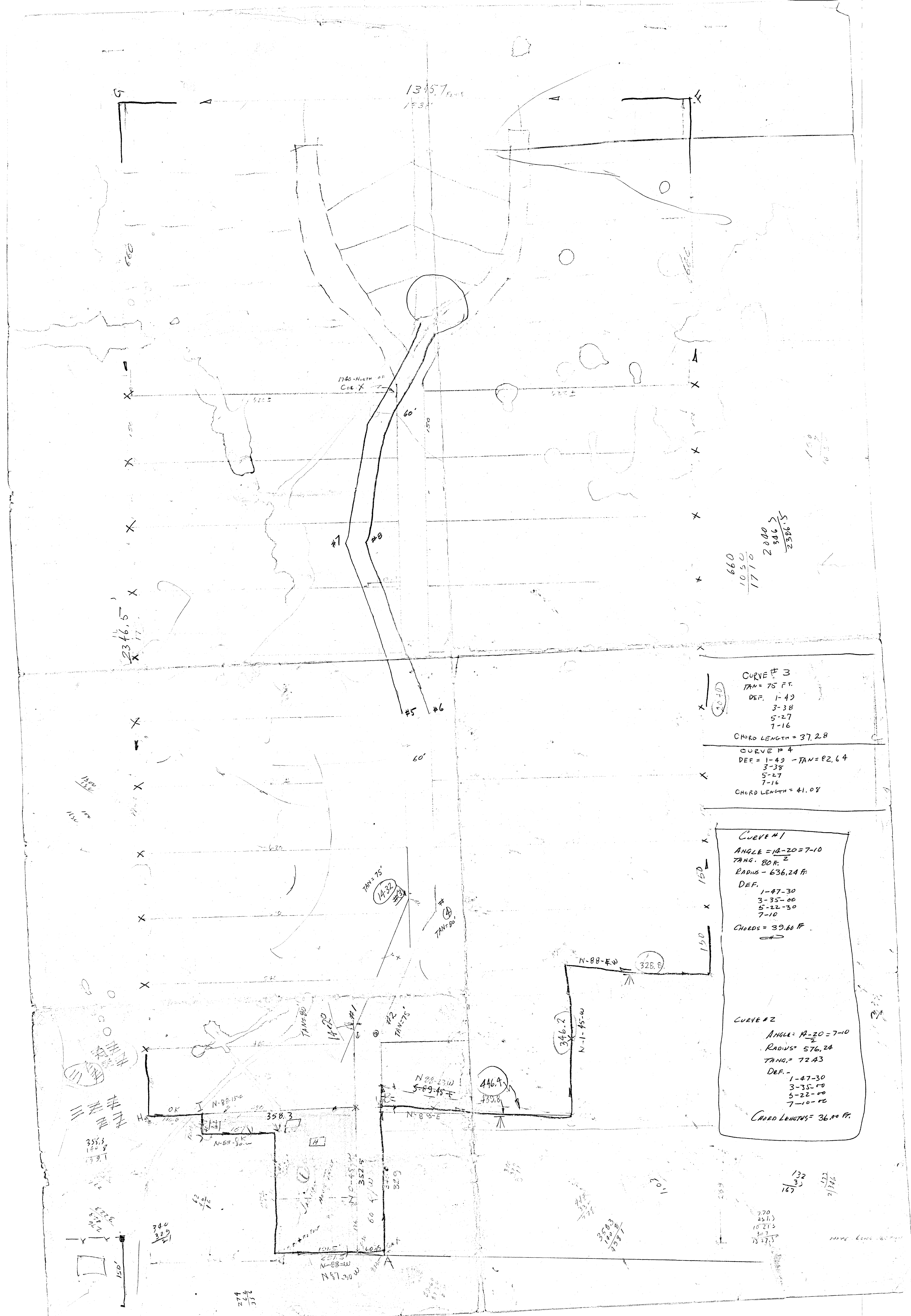
2408.50

274.00

2682.50

2019





CURVE #12
DEF SAME AS 11
CHORD = 50,50 - ?

CURVE #11

TAN = 350' 11"

REF = 3-25-37

6-51-14

10-10-51

13-42-28

17-08-05

20-33-42

23-59-09

27-25

CHORD LENGTH = 81.30

CURVE #12
DELT = 28.45
CHORD LENGTH = 88.30

CURVE # 7
TAN = 140'
DEF = 3-50-30
7-41
11-31-30
15-22
CHORD LENGTHS = 68.04

CURVE # 8

TAN = 123.49

DEF = 3-50-30

7-41

11-31-30

15-22

CHORD-LENGTHS = 60.04

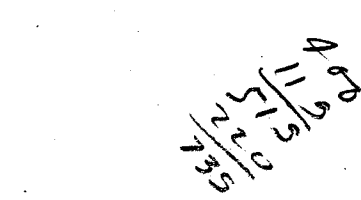
CURVE # 9
TAN = 60°
DEF = 1-11-15
2-22-30
3-33-45
4-45
CHORD LENGTHS = 29.75

CURVE # 10

$TAN = 54.94$

$DEF = 1-11-15$
 $2-22-70$
 $3-33-45$
 $4-45$

CURVED LENGTHS = 27.26



17.6 x


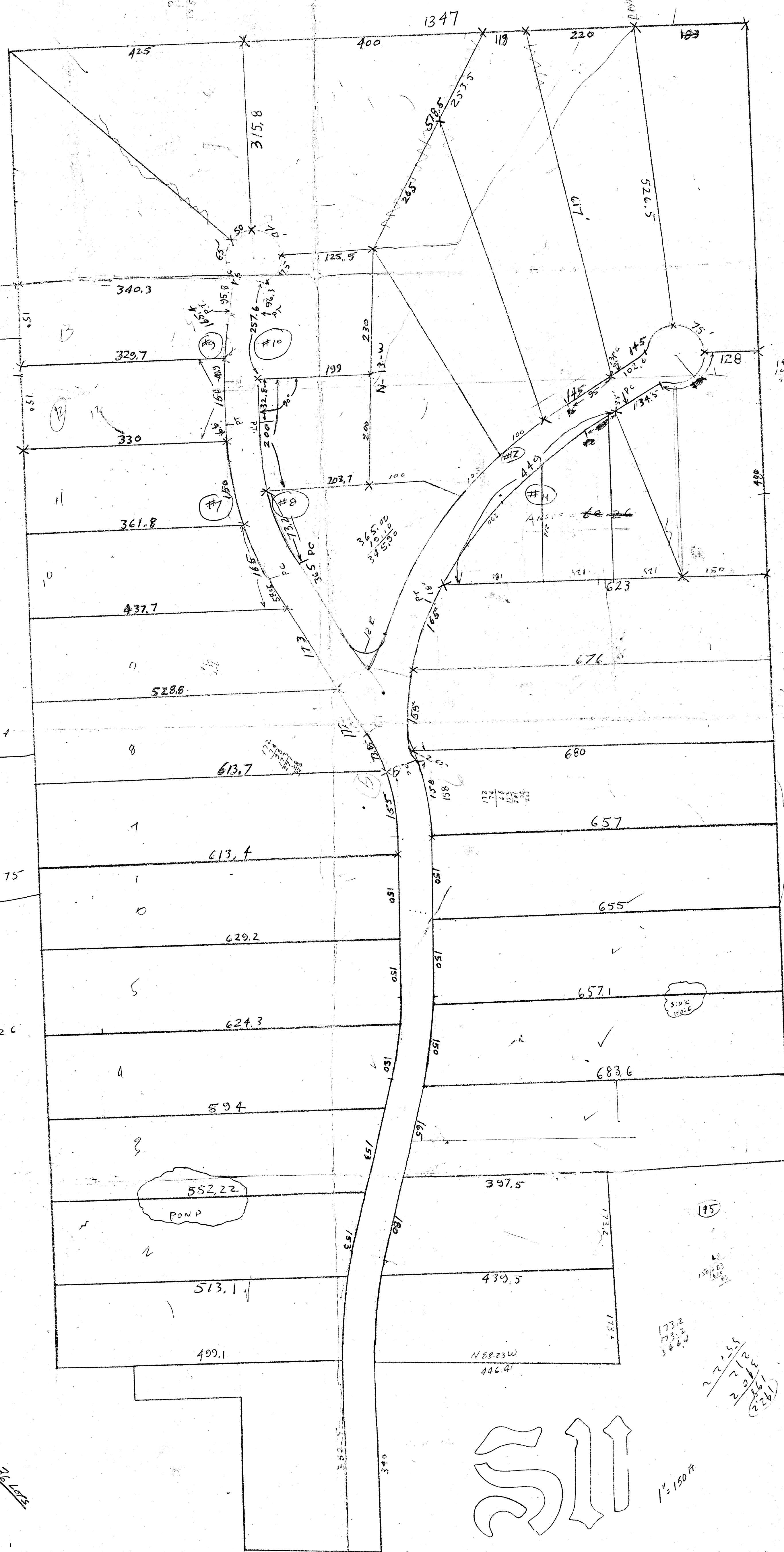
$$\begin{array}{r} 174 \\ 2640 \\ 150 \\ \hline 174 \\ 2640 \\ 150 \\ \hline \end{array}$$

203
142

4

367013

10



$1'' = 150 \text{ ft}$



CURVE #5
TAN = 100 FT
DEF: 4-1-30
8-3-
12-4-30
16-6
CHORD LENGTHS = 48.48

CURVE #6
TAN = 117.28
DEF: 4-1-30
8-3-0
12-4-30
16-6
CHORD LENGTHS = 56.88

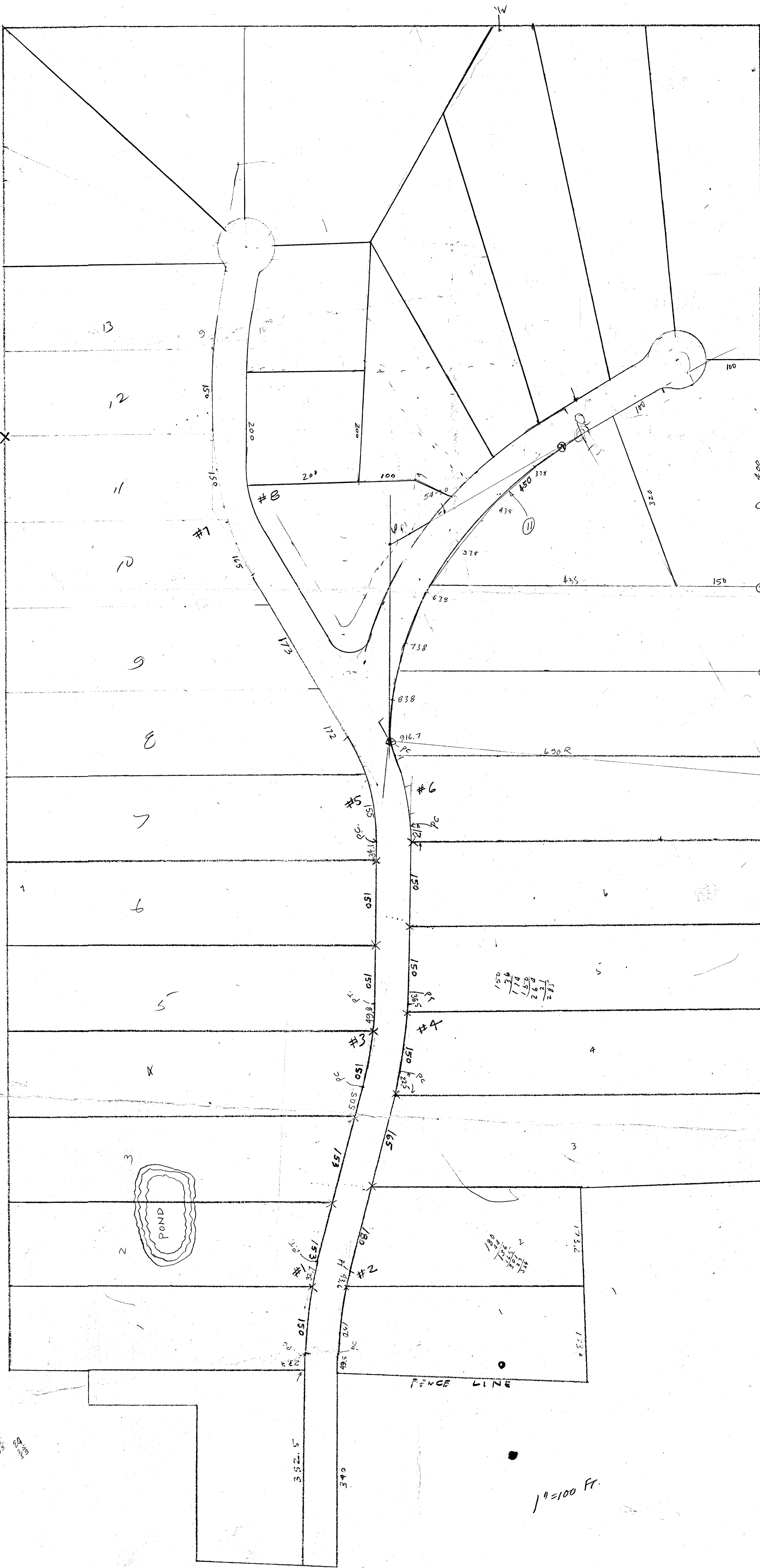
100
100
100

100
100
100

100
100
100

100
100
100

100
100
100



1"=100 Ft.

125.5
18.5
2.25

243.7
10.4
507.7

5.522
1.511
0.861

